

WHAT IS CLAIMED IS:

1. A multi-beam scanning system, comprising:
 - an array of light sources each having a programmable driver programmed with calibrated uniformity values for producing a corresponding light beam;
 - an array of photodetectors;
 - a beam splitter for deflecting said light beams onto said photodetector array;
 - and
 - an array of feedback loops for simultaneously adjusting beam power intensity in a fast/slow scan direction using said programmable drivers for each said light beam wherein each said programmable driver uses said photodetector array as a reference source to adjust for parallel beam to beam power correction produced by said array of light sources.
2. The multi-beam scanning system according to claim 1, wherein said programmable drivers uses smile value input in said feedback loop for varying an amount of current into each said light source for adjusting said beam power intensity.
3. The multi-beam scanning system according to claim 1, wherein said programmable drivers uses droop value input in said feedback loop for varying an amount of current into each said light source for adjusting said beam power intensity.
4. The multi-beam scanning system according to claim 1, wherein said programmable drivers uses system vibration input in said feedback loop for varying an amount of current into each said light source for adjusting said beam power intensity.

5. The multi-beam scanning system according to claim 1, wherein said programmable drivers uses system non-linearity inputs in said feedback loop for modulating said beam power intensity statically.

6. The multi-beam scanning system according to claim 1, wherein said programmable drivers uses system non-linearity inputs in said feedback loop for modulating said beam power intensity dynamically.

7. A method, comprising:
generating a plurality of light beams from an array of light sources using predetermined calibration values stored in programmable drivers;
splitting said plurality of light beams through a beam splitter for receipt on a photodetector plane having an array of photodetectors;
measuring output power for each light beam using a photodetector; and
adjusting an intensity for each said light beam simultaneously in a fast/slow scan direction through an array of feedback loops using said programmable drivers wherein each programmable driver uses said photodetector array as a reference source to adjust for beam to beam power correction produced by said array of light sources.

8. The method according to claim 7, further comprising:
varying an amount of current into each said light source for adjusting said beam power intensity by said programmable drivers using a smile input.

9. The method according to claim 8, wherein said array of feedback loops further comprising:
varying an amount of current into each said light source for adjusting said beam power intensity by said programmable drivers using a droop input.

10. The method according to claim 9, further comprising:
varying an amount of current into each said light source for adjusting said beam power intensity by said programmable drivers using a system vibration input.
11. The method according to claim 8, further comprising:
varying an amount of current into each said light source for adjusting said beam power intensity by said programmable drivers using system non-linearity inputs.
12. The method according to claim 8, further comprising:
modulating an amount of current into each said light source for adjusting said beam power intensity statically.
13. The method according to claim 7, further comprising:
modulating an amount of current into each said light source for adjusting said beam power intensity dynamically.
14. A printer, comprising:
an NxM array of laser sources each having a programmable laser driver programmed with uniformity values for producing a light beam;
an NxM array of photodetectors;
optical means to deflect said light beams onto said photodetector array; and
an NxM array of feedback loops to simultaneously adjust an intensity for each beam in parallel in a fast/slow scan direction through each said programmable laser driver wherein each programmable laser driver uses said photodetector array summed with non-linearity inputs to correct for beam to beam power correction.

15. The printer according to claim 14, wherein said programmable laser driver uses a smile input for varying an amount of current into each light beam.

16. The printer according to claim 14, wherein said programmable laser driver uses a droop input for varying an amount of current into each light beam.

17. The printer according to claim 14, wherein said programmable laser driver uses a system vibration input for varying an amount of current into each light beam.

18. The printer according to claim 14, wherein said programmable laser drivers modulates each light beam statically for producing parallel uniform beam to beam light intensity.

19. The printer according to claim 14, wherein said programmable laser driver modulates each light beam dynamically for producing parallel uniform beam to beam light intensity.

20. The printer according to claim 14, wherein said NxM array of light beams is a vertical cavity surface emitting laser array.